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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,944	04/12/2001	David B. Dwyer	H0002046	3235

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EXAMINER

AMINI, JAVID A

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 03/26/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/833,944

Applicant(s)

DWYER ET AL.

Examiner

Javid A Amini

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☒ Claim(s) 1-27 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 5, 7, 10, 13, 15-23 and 25 rejected under 35 U.S.C. 102(e) as being anticipated by Harrison et al.

1. Claim 1.

“An apparatus for displaying a plurality of data categories, comprising: a display that is configured to produce a first visual representation of a first data category of the plurality of data categories and a second visual representation of said second data category of the plurality of data categories; and a processor that is configured to control said display during production of said first visual representation of said first data category and said second visual representation of said second data category such that said first visual representation of said first data category is at least partially transparent to provide at least partial visibility of said second visual representation of said second category through said first visual representation of said first data category”, Harrison et al. illustrates in Figs. 4-5A several menus with 20% foreground and 80% background combined transparency without anti-interference outlines; in Fig. 5A illustrates several menus with 20% foreground and 80% background combined transparency with font style anti-interference outlines in accordance with a preferred embodiment of the present invention.

2. Claim 5.

“The apparatus of Claim 1, wherein said plurality of data categories are vehicle data categories”, Harrison illustrates in Fig. 5B. The step is inherent because the term “vehicle data categories” is equivalent of raster (graphic) data categories.

3. Claim 7.

“The apparatus of Claim 1, wherein said display is a Multi-Function Display (MFD)”, the step is inherent because Harrison’s invention is covering the multi-windows and color environment, therefore the display should be a multi function display. On the other hand the display or monitor is not the main invention in this application.

4. Claim 10.

“An apparatus for displaying a plurality of data categories, comprising: a display that is configured to produce a first visual layer representation of a first data category of the plurality of data categories and a second visual layer representation of a second data category of said plurality of data categories; a processor that is configured to control said display to present said first visual representation of said first data category superimposed over said second visual representation of said second data category and superimpose said second visual representation of said second data category over said first visual representation of said first data category if a predefined event is identified by said processor”, Harrison et al. illustrates in Figs. 4-5A several menus with 20% foreground and 80% background combined transparency without anti-interference outlines; in Fig. 5A illustrates several menus with 20% foreground and 80% background combined transparency with font style anti-interference outlines in accordance with a preferred embodiment of the present invention.

5. Claim 13.

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“The apparatus of Claim 10, wherein said plurality of data categories are vehicle data categories”, Harrison illustrates in Fig. 5B. The step is inherent because the term “vehicle data categories” is equivalent of raster (graphic) data categories.

6. Claim 15.

“The apparatus of Claim 10, wherein said display is a Multi-Function Display (MFD)”, the step is inherent because Harrison’s invention is covering the multi-windows and color environment, therefore the display should be a multi function display. On the other hand the display or monitor is not the main invention in this application.

7. Claim 16.

“The apparatus of Claim 10, wherein said first data category is sensor data”, the step is inherent because any data can be considered as sensor data.

8. Claim 17.

“The apparatus of Claim 10, wherein said second data category is navigation data”, the step is inherent because any data can be considered as navigation data.

9. Claim 18.

“An apparatus for displaying a plurality of data categories, comprising: a display that is configured to produce a first visual representation of a first data category of the plurality of data categories, a second visual representation of said second data category of the plurality of data categories; and a processor that is configured to control said display during production of said first visual representation of said first data category, said second visual representation of said second data category such that a first color is provided for said first visual representation of said first data category and a second color is provided for said second visual representation of said second data category that correspond to a first priority for said first color and a second priority for said second color with a first color difference between said first color and a background color of said display greater than about seventy-five and a second color difference between

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said second color and said background color less than about seventy-five”, Harrison et al. illustrates in Figs. 4-5A several menus with 20% foreground and 80% background combined transparency without anti-interference outlines; in Fig. 5A illustrates several menus with 20% foreground and 80% background combined transparency with font style anti-interference outlines in accordance with a preferred embodiment of the present invention.

10. Claim 19.

“The apparatus of Claim 18, wherein said first color difference is greater than about ninety (90). Harrison illustrates in Fig. 12 an adjuster for adjusting transparency level within a range of 0-100 percent transparencies .

11. Claim 20.

“The apparatus of Claim 18, wherein said first color difference is greater than about one hundred (100)”, Harrison illustrates in Fig. 12 an adjuster for adjusting transparency level within a range of 0-100 percent transparencies .

12. Claim 21.

“The apparatus of Claim 18, wherein said second color difference is less than about ninety (90)”, Harrison illustrates in Fig. 12 an adjuster for adjusting transparency level within a range of 0-100 percent transparencies .

13. Claim 22.

“The apparatus of Claim 18, wherein said second color difference is less than about one hundred (100)”, Harrison illustrates in Fig. 12 an adjuster for adjusting transparency level within a range of 0-100 percent transparencies .

14. Claim 23.

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“The apparatus of Claim 18, wherein said plurality of data categories are vehicle data categories”, Harrison illustrates in Fig. 5B. The step is inherent because the term “vehicle data categories” is equivalent of raster (graphic) data categories.

15. Claim 25.

“The apparatus of Claim 18, wherein said display is a Multi-Function Display (MFD)”, the step is inherent because Harrison’s invention is covering the multi-windows and color environment, therefore the display should be a multi function display. On the other hand the display or monitor is not the main invention in this application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4, 6, 8-9, 11-12, 14, 24 and 26-27 rejected under 35 U.S.C. 103(a) as being unpatentable over Harrison, and further in view of Buxton.

16. Claim 2.

“The apparatus of Claim 1, wherein said display is configured to produce a third visual representation of a third data category of the plurality of data categories and said processor is configured to control said display during production of said first visual representation of said first data category and said third visual representation of said third data category such that said first visual representation of said first data category is at least partially transparent to provide at

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least partial visibility of said third visual representation of said third category of data through said first visual representation of said first data category”, Harrison illustrates in Fig. 5B a window-over-window scenario with 50% foreground and 50% background combined transparency with anti-interference outlines in accordance with a preferred embodiment of the present invention. Harrison does not explicitly specifying three levels of visual representation, however Buxton et al. teaches in abstract The GUI utilizes variable-transparency to merge images (or layers) of objects onto a graphical display. For example, "see through" objects (such as menus, tool palettes, windows, dialogue boxes, or screens) are superimposed over similar objects or different background content (such as text, wire-frame or line art images, or solid images). Also see Figs 6-11, illustrates three different level of transparency (wire, solid and text). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Buxton into Harrison in order to enhanced system performance. That is, the optimal thresholds provided by the present invention facilitate more insightful use of visual enhancement techniques. For example, these thresholds allow system designers to predetermine the optimal transparency levels required by any particular application. As such, image-blending techniques can be embodied in system hardware to allow fast computational performance.

17. Claim 3.

“The apparatus of Claim 2, wherein said display is configured to produce a fourth visual representation of a fourth data category of the plurality of data categories and said processor is configured to control said display during production of said first visual representation of said first data category and said fourth visual representation of said fourth data category such that said first visual representation of said first data category is at least partially transparent to provide at least partial visibility of said fourth visual

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representation of said fourth data category through said first visual representation of said first data category”, the step of adding more layer is obvious because according, to Harrison’s invention (col. 2, lines 38-49) variably_transparent GUIs allow multiple object image "layers" to be simultaneously observed. Correspondingly, these interfaces are instrumental in providing integration between user tool space (foreground) and task space (background), between multiple tools, or between different object images. For example, such interfaces allow the user to interact with foreground objects, carry out activities, or change parameters that are ultimately reflected in a background layer (e.g., color changes, font changes, view changes). Correspondingly, these GUIs provide the user with a more efficient mechanism to perform operations without being overly disruptive (see col. 2, lines 38-49).

18. Claim 4.

“The apparatus of Claim 1, wherein said processor is control said display for production of a plurality of transparency levels providing a plurality of reduced visibilities of said second visual representation of said second data category through said first visual representation of said first data category”, Harrison illustrates in Figs. 4-5A several menus with 20% foreground and 80% background combined transparency without anti-interference outlines. Harrison does not explicitly specifying three levels of visual representation, however Buxton et al. teaches in abstract The GUI utilizes variable-transparency to merge images (or layers) of objects onto a graphical display. For example, "see through" objects (such as menus, tool palettes, windows, dialogue boxes, or screens) are superimposed over similar objects or different background content (such as text, wire-frame or line art images, or solid images). Also see Figs 6-11, illustrates three different level of transparency (wire, solid and text).

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Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Buxton into Harrison in order to enhanced system performance. That is, the optimal thresholds provided by the present invention facilitate more insightful use of visual enhancement techniques. For example, these thresholds allow system designers to predetermine the optimal transparency levels required by any particular application. As such, image-blending techniques can be embodied in system hardware to allow fast computational performance.

19. Claim 6.

“The apparatus of Claim 1, wherein said plurality of data categories are aircraft data categories”, the step is obvious because the image of plurality of data categories can be aircraft, vehicle, house or etc., see also the rejection of claim 5.

20. Claim 8.

“The apparatus of Claim 1, wherein said first data category is sensor data”, the step is obvious because any data can be considered as sensor data.

21. Claim 9.

“The apparatus of Claim 1, wherein said second data category is navigation data”, the step is obvious because any data can be considered as navigation data.

22. Claim 11.

“The apparatus of Claim 10, wherein said display is configured to produce a third visual representation of a third data category of the plurality of data categories and said processor is configured to control said display to present said first visual representation of said first data category superimposed over said third visual representation of said third data category and

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superimpose said third visual representation of said third data category over said first visual representation of said first data category if said predefined event is identified by said processor”, Harrison illustrates in Figs. 4-5A several menus with 20% foreground and 80% background combined transparency without anti-interference outlines. Harrison does not explicitly specifying three levels of visual representation, however Buxton et al. teaches in abstract The GUI utilizes variable-transparency to merge images (or layers) of objects onto a graphical display. For example, "see through" objects (such as menus, tool palettes, windows, dialogue boxes, or screens) are superimposed over similar objects or different background content (such as text, wire-frame or line art images, or solid images). Also see Figs 6-11, illustrates three different level of transparency (wire, solid and text).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Buxton into Harrison in order to enhanced system performance. That is, the optimal thresholds provided by the present invention facilitate more insightful use of visual enhancement techniques. For example, these thresholds allow system designers to predetermine the optimal transparency levels required by any particular application. As such, image-blending techniques can be embodied in system hardware to allow fast computational performance.

23. Claim 12.

“The apparatus of Claim 11, wherein said display is configured to produce a fourth visual representation of a fourth data category of the plurality of data categories and said processor is configured to control said display to present said first visual representation of said first data category superimposed over said fourth visual representation of said fourth data category and superimpose said fourth visual representation of said fourth data category over said first visual representation of said first data category if said predefined

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event is identified by said processor”, the step of adding more layer is obvious because according, to Harrison’s invention (col. 2, lines 38-49) variably transparent GUIs allow multiple object image “layers” to be simultaneously observed. Correspondingly, these interfaces are instrumental in providing integration between user tool space (foreground) and task space (background), between multiple tools, or between different object images. For example, such interfaces allow the user to interact with foreground objects, carry out activities, or change parameters that are ultimately reflected in a background layer (e.g., color changes, font changes, view changes). Correspondingly, these GUIs provide the user with a more efficient mechanism to perform operations without being overly disruptive (see col. 2, lines 38-49).

24. Claim 14.

“The apparatus of Claim 10, wherein said plurality of data categories are aircraft data categories”, the step is obvious because the image of plurality of data categories can be aircraft, vehicle, house or etc., see also the rejection of claim 13.

25. Claim 24.

“The apparatus of Claim 18, wherein said plurality of data categories are aircraft data categories”, the step is obvious because the image of plurality of data categories can be aircraft, vehicle, house or etc., see also the rejection of claim 24.

26. Claim 26.

“The apparatus of Claim 18, wherein said first data category is sensor data”, the step is obvious because any data can be considered as sensor data.

27. Claim 27.

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"The apparatus of Claim 18, wherein said second data category is navigation data", the step is obvious because any data can be considered as sensor data.

Conclusion

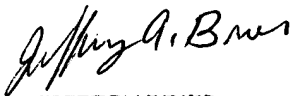
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A Amini whose telephone number is 703-605-4248. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 703-305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-8705 for regular communications and 703-746-8705 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

Javid A Amini
Examiner
Art Unit 2672

Javid Amini
March 24, 2003


JEFFERY BRIER
PRIMARY EXAMINER